

IN THE CLAIMS

1. **(currently amended)** A picture distribution system for distributing picture data from one or more sources to a plurality of receiving devices using a distribution device, the system comprising:

a network where a plurality of logical channels are established in a time division multiplex method;

the distribution device distributing picture data from the one or more sources to the plurality of receiving devices via a logical channel designated by a distribution instruction;

the plurality of receiving devices receiving picture data from respective logical channels designated by receiving instructions; and

an allocation unit allocating respective bandwidth to each of a plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels, wherein

said allocation unit allocates a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number by having a new source added thereto, said allocation unit

a) selects one of the plurality of logical channels, on which picture data from a corresponding source has been transmitted, to which the first bandwidth has been allocated,

b) generates new logical channels each having a second bandwidth, which is obtained by dividing the first bandwidth of the selected logical channel by a predetermined integer, and

c) _____ allocates one of the new logical channels to the corresponding source
and the other of the new logical channels to the new source~~allocates the first~~
~~bandwidth to each of a subset of the logical channels and a predetermined second~~
~~bandwidth, which is obtained by dividing the first bandwidth by a predetermined~~
~~integer, to each of another subset of the logical channels.~~

2. (original) The picture distribution system according to claim 1, wherein said network is a ring-shaped transmission line.

3. (previously presented) The picture distribution system according to claim 1, further comprising a determination unit determining the number of logical channels to be established in said network.

4. (previously presented) The picture distribution system according to claim 1, further comprising the allocation unit allocating respective bandwidth used to transmit picture data to the plurality of logical channels.

5. (canceled)

6. (previously presented) The picture distribution system according to claim 1, wherein
priority is given in advance to the plurality of logical channels, and
said allocation unit allocates respective bandwidth to the plurality of logical channels based on the priority given to each logical channel.

7. **(currently amended)** The picture distribution system according to claim 1,
wherein
priority is given in advance to the plurality of receiving devices; and
said allocation ~~means~~ unit allocates respective bandwidth to said plurality of logical
channels based on the priority given to each receiving device.

8. (previously presented) The picture distribution system according to claim 1,
wherein
said distribution device generates a receiving instruction according to a received
distribution instruction and transmits the receiving instruction to a corresponding receiving
device via said network.

9. **(currently amended)** A distribution device which is used in a picture distribution
system for distributing picture data from one or more sources to a plurality of receiving
devices via a network where a plurality of logical channels are established by a time division
multiplex method, comprising:

a distribution unit distributing picture data to the plurality of receiving devices via a
logical channel designated by a distribution instruction, the picture data being received by the
receiving devices with a function to receive picture data from a logical channel designated by
a receiving instruction; and

an allocation unit for allocating respective bandwidth to the plurality of logical
channels used to transmit picture data according to a number of sources for picture data to be
transmitted via the plurality of logical channels, wherein

said allocation unit allocates a predetermined first bandwidth to each of the logical
channels when the number of sources for picture data to be transmitted via the plurality of

logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number by having a new source added thereto, said allocation unit

a) selects one of the plurality of logical channels, on which picture data from a corresponding source has been transmitted, to which the first bandwidth has been allocated,

b) generates new logical channels each having a second bandwidth, which is obtained by dividing the first bandwidth of the selected logical channel by a predetermined integer, and

c) allocates one of the new logical channels to the corresponding source and the other of the new logical channels to the new source~~allocates the first bandwidth to each of a subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another subset of the logical channels.~~

10. **(currently amended)** A receiving device which is used as one of a plurality of receiving devices in a picture distribution system for distributing picture data using a distribution device from one or more sources to a plurality of receiving devices via a network where a plurality of logical channels are established by a time division multiplex method and respective bandwidth is allocated to the plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels, comprising:

a receiving unit receiving a set of picture data from a logical channel designated by a receiving instruction, the set of picture data being transmitted from the distribution device

with a function to distribute picture data via a logical channel designated by a distribution instruction, wherein

respective bandwidth is allocated as a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number by having a new source added thereto, the respective bandwidth is allocated by

a) selecting one of the plurality of logical channels, on which picture data from a corresponding source has been transmitted, to which the first bandwidth has been allocated,

b) generating new logical channels each having a second bandwidth, which is obtained by dividing the first bandwidth of the selected logical channel by a predetermined integer, and

c) allocating one of the new logical channels to the corresponding source and the other of the new logical channels to the new source~~as the first bandwidth to each of a subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another subset of the logical channels.~~

11. **(currently amended)** A picture distribution system for distributing picture data from one or more sources to a plurality of receiving devices using a distribution device, comprising:

a network where fixed-length frames each composed of a plurality of time slots are transmitted;

one or more distribution devices storing first picture data in a first time slot of the fixed-length frame, storing second picture data in a second time slot of the fixed-length frame, and transmitting the fixed-length frame to the network;

the plurality of receiving devices receiving the respective picture data from the first or second time slots of the fixed-length frame according to a receiving instruction; and

an allocation unit for allocating respective bandwidth to ~~a~~ the plurality of logical channel time slots used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of ~~logical channel time slots~~, wherein

said allocation unit allocates a predetermined first bandwidth to each of the ~~logical channel time slots~~ when the number of sources for picture data to be transmitted via the plurality of ~~logical channel time slots~~ does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of ~~logical channel time slots~~ exceeds the threshold number by having a new source added thereto, said allocation unit

a) selects one of the plurality of time slots, on which picture data from a corresponding source has been transmitted, to which the first bandwidth has been allocated,

b) generates new time slots each having a second bandwidth, which is obtained by dividing the first bandwidth of the selected time slot by a predetermined integer, and

c) allocates one of the new time slots to the corresponding source and the other of the new time slots to the new source ~~allocates the first bandwidth to each of a subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another subset of the logical channels.~~

12. (original) The picture distribution system according to claim 11, wherein if third picture data are requested to be distributed while the first and second picture data are being distributed, said one or more distribution devices store the first picture data in the first time slot of the fixed-length frame, store the second and third picture data in the second time slot of the fixed-length frame, and transmit the fixed length frame to said network.

13. **(currently amended)** A picture distribution method for distributing picture data from one or more sources to a plurality of receiving devices using a distribution device, comprising:

establishing a plurality of logical channels by a time division multiplex method;

allocating respective bandwidth to the plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels;

distributing picture data via a logical channel designated by a distribution instruction;

and

receiving by the plurality of receiving devices respective picture data from logical channels designated by corresponding receiving instructions, wherein

said allocating step allocates a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number by having a new source added thereto, said allocating step includes

a) selecting one of the plurality of logical channels, on which picture data from a corresponding source has been transmitted, to which the first bandwidth has been allocated,

b) generating new logical channels each having a second bandwidth, which is obtained by dividing the first bandwidth of the selected logical channel by a predetermined integer, and

c) allocating one of the new logical channels to the corresponding source and the other of the new logical channels to the new source~~allocates the first bandwidth to each of a subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another subset of the logical channels.~~

14. (previously presented) The picture distribution method according to claim 13, further comprising:

determining a number of logical channels to be established according to the number of sources for picture data to be transmitted via the plurality of logical channels; and

generating the distribution instruction based on the determined number of logical channels and allocated bandwidth.